



Date: 01/23/19

DCA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

LEONARDO HELICOPTERS		Supplier Concession				PAGE 1 of 2	PLANT Vergiate	
Supplier NC N.	AWC-013/00	Date	28.01.2019	AW Concession	400000079574	Purchase Order	4801861243	
P/N	6F9540V00231			Grade/Category	NC	Drawing Issue		
Part Description	PROTECTR, CCP ASSY LOWER			Batch Quantity	4,000	Defective Quantity	4,000	
AW NC	MARCO FRANCESCONI					A/C Type/Model	AW6	
Supplier	DART AEROSPACE LTD					Contract		
Defect MA01 - Items or materials different from requir - S/N S147044, S147074, S147077, S147079 * 28.01.2019 17:40:26 MARCO FRANCESCONI (39978) * SEE SUPPLIER ATTACHED DOC. AWC-013 Cause of Defect Repetitiveness (same P/N - Defect Code) NO ☐ YES ☒ Follow (5)								
ENGINEERING Evaluation and Proposal								
Engineering Evaluations, including Specialist inputs: * 04.02.2019 18:51:07 MARCELLO STEFANELLI (9273) * Accettable to use as is, as for evaluation in the annex.				Investigation Report n.		Compliance Report n.		
Classification of Deviation from Type Design i.a.w. EASA Part 21A.91 : Minore/B								
Defect effect					Limitations			
	Before Repair		After Repair					
Safety	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES (to specificity) ☒ NO			
Life or Duration	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Strenght	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Performances	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Interchangeability	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Reliability	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Maintainability	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Installability	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Testability	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Only Appearance	☐ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
No Effect	☒ YES	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
Repair Proposal:					Decision			
					☐ Use rep. with spec.repair(not yet applied) ☐ Use repaired with known repair(yet applied) ☒ Use As Is ☐ Use repaired for tests only(see Limitations) ☐ Use As Is for tests only(see Limitations) ☐ Scrap			
Concession Classification		☐ MAJOR ☒ MINOR		Re-submit after Repair		☐ YES ☒ NO		
Mark part with Concession		☒ NO ☐ YES		Method :				
ATE	MARCELLO STEFANELLI			CPE			Date	04.02.2019
Checks and tests to be performed								
Repair registration with repair WO ☐ Number:								
Repair Evaluation:								
Final Decision								
S/N	Use As Is (UTI)	Use Repaired (R/L)	Scrap (SCA)	S/N	Use As Is (UTI)	Use Repaired (R/L)	Scrap (SCA)	
S147044	☒	☐	☐		☐	☐	☐	
S147074	☒	☐	☐		☐	☐	☐	
S147077	☒	☐	☐		☐	☐	☐	
S147079	☒	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
Not Serialized	Use As Is (Q.ty)	4,000	Use Repaired (Q.ty)		Scrap (Q.ty)			
Role	AW ATE	AW CPE	Inspection Clearance Repair	Quality	Customer	MoD or Authority Representative		
Signature	MARCELLO STEFANELLI			MARCO FRANCESCONI				
Date	04.02.2019			05.02.2019				

Supplier NC N.	AWC-013/00	Date	28.01.2019	AW	400000079574	Purchase Order	4801861243
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DEFECT 0001 **MA01** *Items or materials different from requir*
S/N S147044, S147074, S147077, S147079

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DEFECT CAUSES

* C41 Material did not comply with specificati

<i>Manuf. Doc. N.</i>	AWC-013	<i>Date</i>	Jan 25, 2019	<i>AW Doc. N.</i>	400000079574	<i>Purchase Order</i>	4801861243
<i>AW P/N</i>	6F9540V00231	<i>S/N / Batch Number</i>	SI47077 SI47079 SI47044 SI47074	<i>Grade</i>	A	<i>AW Drawing Issue</i>	B
<i>Description</i>	Protector, CCP Lower Assembly			<i>Batch Q.ty</i>	4	<i>Defective Q.ty</i>	4
<i>Manufacturer</i>	Dart Aerospace LTD			<i>Model</i>	AW169		
<i>Defect(s) Description</i>							
The grain direction on the D4842-1 (D4842-041 Lower Cutter Deflector), P/N 6F9540V0231. Deflector was deviated from the approved Data. The proposed change to the drawing is attached in engineering evaluation.							
				<i>Department</i>	<i>Inspector</i>	<i>Signature</i>	<i>Date</i>
				Quality Assurance	DAS-16-9-89	P. Duval	Jan 25, 2019
<i>Defect(s) Cause</i>							
Dart Hawkesbury Design Engineer has modified the approved drawing to allow for manufacturing to minimize in material waste.							
				<i>Department</i>	<i>Inspector</i>	<i>Signature</i>	<i>Date</i>
				Quality Assurance	DAS-16-9-89	P. Duval	Jan 25, 2019
<i>Corrective Action</i>						<i>Complete Before</i>	
Dart Aerospace HBY requesting drawing update to allow for grain direction change on D4842-1							
				<i>Department</i>	<i>Inspector</i>	<i>Signature</i>	<i>Date</i>
				Quality Assurance	DAS-16-9-89	P. Duval	Jan 25, 2019

For "MANUFACTURER" SUPPLIERS ONLY

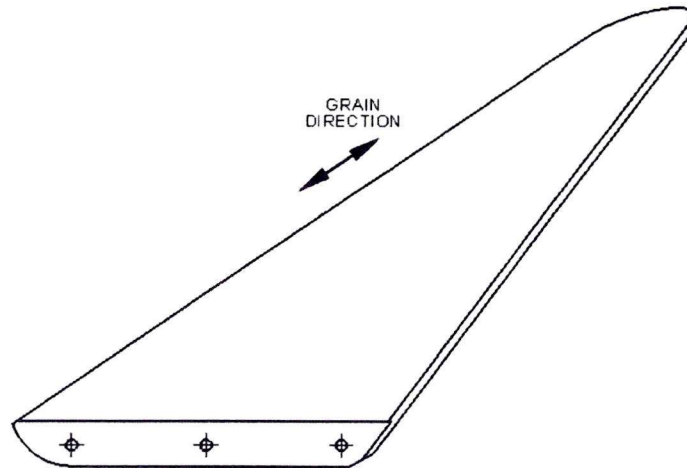
ENGINEERING evaluation and proposal

Engineering evaluation

Investigation report
Compliance report

n: NCR18-6764
n... N/A.....

Grain direction was rotated 56° to align with the leading edge of the deflector. This orientation allows for a smaller raw material blank size and significantly reduce material scrap. The grain direction is still effectively perpendicular to the bending plane from cable loads. The effect on strength is insignificant.



Defect effects			Limitations
	Before any repair	After any repair	
	☐ yes	☐ yes ☐ no	☐ yes (specify) ☒ no
Safety	☐ yes	☐ yes ☐ no	
Life	☐ yes	☐ yes ☐ no	
Strength	☐ yes	☐ yes ☐ no	
Performances	☐ yes	☐ yes ☐ no	
Interchangeability	☐ yes	☐ yes ☐ no	
Reliability	☐ yes	☐ yes ☐ no	
Maintainability	☐ yes	☐ yes ☐ no	
Installability	☐ yes	☐ yes ☐ no	
Testability	☐ yes	☐ yes ☐ no	
Only aspect	☐ yes	☐ yes ☐ no	
Repair Proposal			Decision to use ☐ Use repaired with specific repair ☐ Use repaired with known repair ☐ Use as is ☐ Use repaired for tests (see Limitations) ☐ Use as is for tests (see Limitations) ☐ Scrap
Concession Classification	☒ Major ☐ Minor	Submit after repair	☐ yes ☐ no